Results of Random Audit of FY 2001 Inspection Data

Proposed Random Audit of Enforcement Action Data

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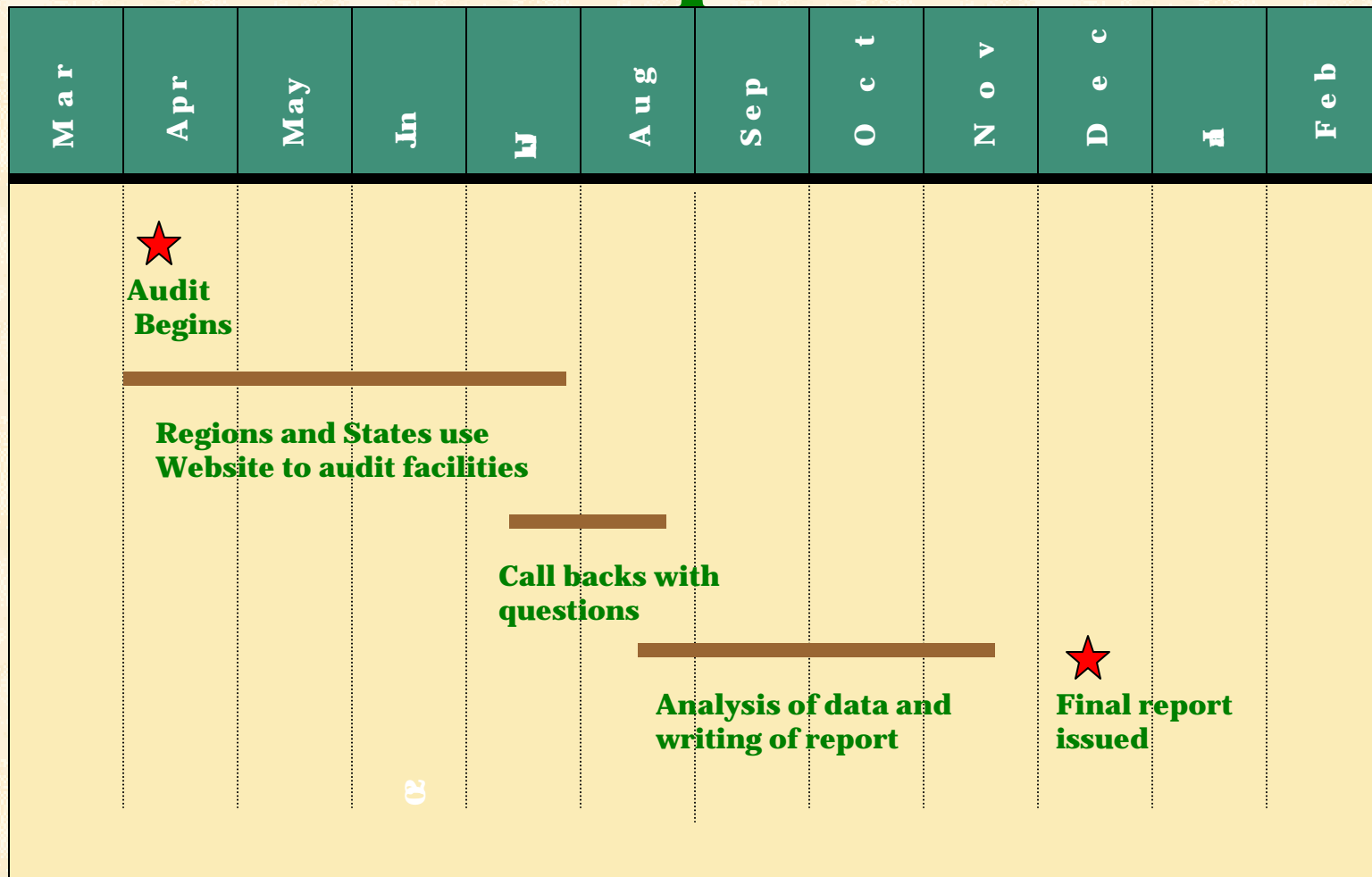*AFS 2003 National Workshop: July 8 – 11, 2003*

Agenda

❖ Background – Inspection Audit:

- Why Conduct Audits?

- Timeline, Methodology & Participation

- Audit Website

❖ Results of Inspection Audit

❖ Follow-up:

- Reasons for Differences

- Use of Results

- Reasons to Enter Complete Data

- Initiatives to Promote Complete Reporting

❖ Proposed Audit of Enforcement Data

❖ Summary

Why Conduct Audits ?

❖ Conclusions Drawn in Reports are challenged due to Data Quality Concerns

❖ OC's Quality Management Plan – principle: "use of analytical techniques that yield comprehensive assessments, such as random sampling"

❖ Objective Measure of the Accuracy and Completeness of Data

❖ Baseline from which to Measure Data Quality Improvements

Timeline for Audit of FY 2001 Inspection Data

Mar	Apr	May	Jn	Jl	Aug	Sep	Oct	Nov	Dec	Jan	Feb

★ **Audit Begins**

Regions and States use Website to audit facilities

Call backs with questions

Analysis of data and writing of report

★ **Final report issued**

Methodology & Participation

❖ Sample Size

   - 8 facilities per state per data system
   - National statements about data quality

❖ 100% Participation Achieved - 3 programs
   in 50 states and Puerto Rico, and 10 Regions

Thanks for your participation!

Audit Website

Step 2: Verify Records - Mozilla {Build ID: 2002121215}

File Edit View Go Bookmarks Tools Window Help Debug QA

Inspection Audit

DE_AFS logged in [logout]
Specific user: Stephen Ours

Instructions | Step 1: View Facilities | Step 2: Verify Records

Step 2: Verify Records

Please click on the "Audit Facility" button to check your hard copy records against the data in the federal system. If you make a mistake, or check the same facility twice, only your final entry will count in the audit.

| ID	State	Data System	Facility Name	Audit	Audit Status
1000100016	DE	AFS	REICHHOLD, INC.	Audit Facility	● Checked
1000100090	DE	AFS	PLAYTEX PRODUCTS, INC - PLANT	Audit Facility	● Checked
1000300021	DE	AFS	SUNOCO, INC. (R&M)	Audit Facility	● Checked
1000300051	DE	AFS	FMC CORPORATION	Audit Facility	● Checked

❖ Pre-populated with inspection data from data bases
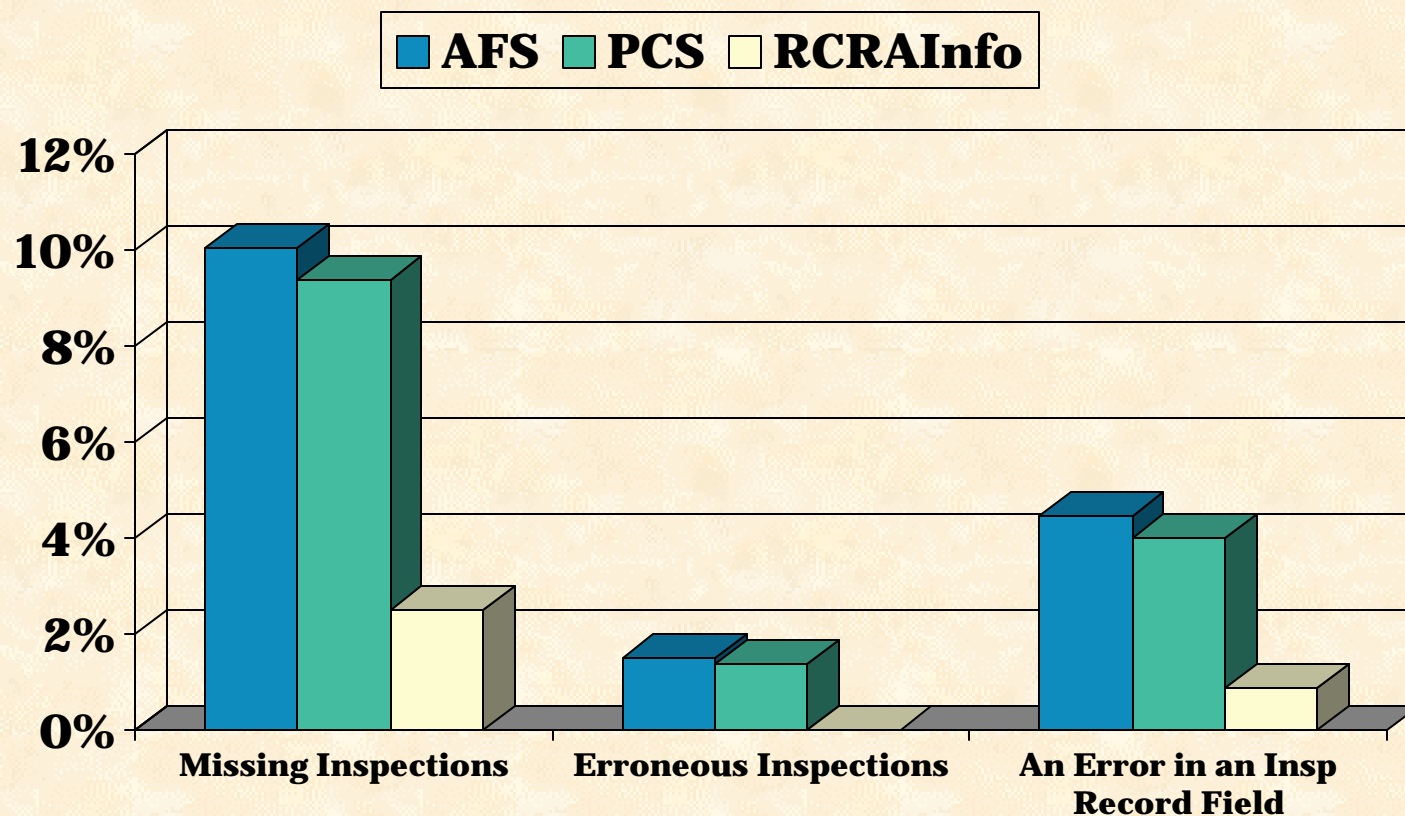
❖ Compare inspection data with hardcopy records

❖ Enter differences

FY 2001 Inspection Accuracy Rates

(Percentage of facilities with completely accurate Inspection information)

Legend: AFS · PCS · RCRAInfo

- AFS: 87%
- PCS: 87%
- RCRAInfo: 97%
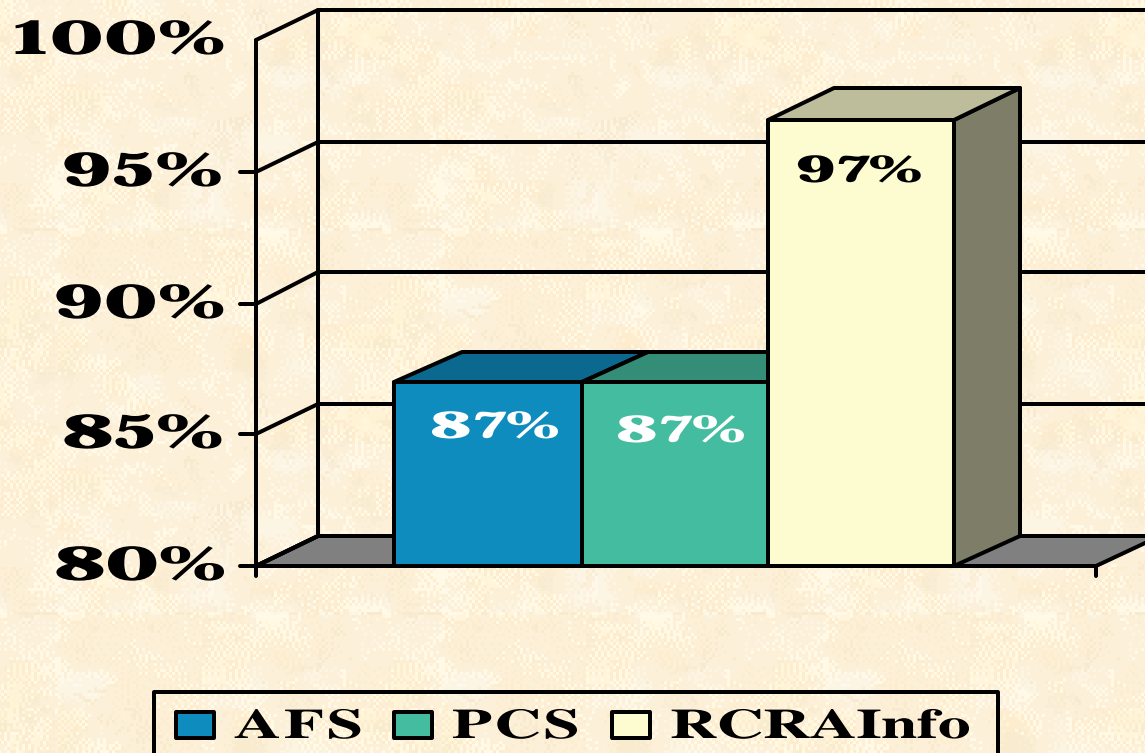
Percentage of Facilities with ...

These are not additive to the overall error rates since these three types of errors can and do occur in the same facilities.

Da   ry

❖ Missing inspections: majority of errors

❖ Inspection record information > 95 %
accurate for all three data systems -

   date, lead agency, and inspection type

❖ Facilities containing erroneous data:
- Less than 2% for AFS & PCS;
- 100% for RCRAInfo

❖ Statements asserting that a facility:

    - was inspected at least once are accurate 99 % of

        the time for all three data systems

    - was not inspected at least once can be made with

        92 to 99 % accuracy dependinverifying particular

        data system

❖ Results - driven by missing inspections

Possible Reasons why RCRAInfo Data is More Accurate

❖ RCRA determines violations through inspections

❖ Air & NPDES: Violations and SNC/HPV status determined by other methods:
  - self reporting
  - less incentive to get inspections in these systems **?**

❖ RCRAInfo is a modernized system:
  - Software enforces data business rules

❖ Current Use:

- promote complete data entry

- promote systems modernization

❖ Future Use:

- accompany important reports and analyses

- serve as baseline for quality efforts

Reasons to Complete

❖ Receive less credit for compliance monitoring activities

❖ Enforcement and compliance data has been released to the public -

complete and accurate data is now even more important

Headquarter's Initiatives to Promote Complete & Accurate Reporting

❖ PCS is currently undergoing modernization as Phase II of ICIS

❖ The AFS needs analysis report:
- prioritized the needs for the next generation of AFS
- identified action items that need to be addressed before delivery of a modernized system

❖ Other Data Quality projects

Proposed Random Audit of Enforcement Action Data

Audit of State and Federal Enforcement Action Data

❖ Proposed Methodology:

  - 10 facilities per state per data system

  - National statements about data quality

❖ Random selection of facilities from legacy systems

❖ EPA enforcement actions will be taken from ICIS

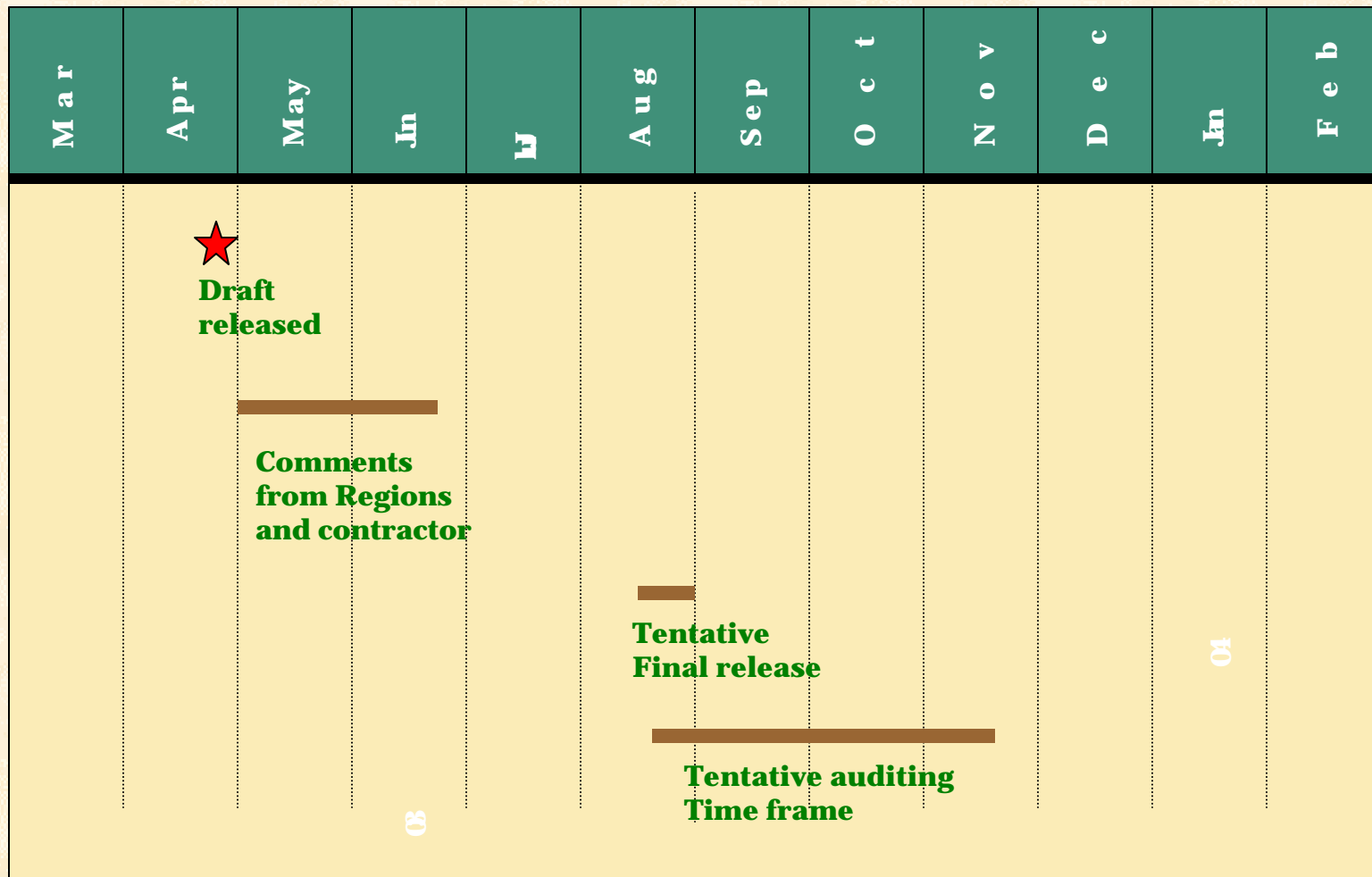❖ State enforcement actions will be taken from the legacy systems

❖ Mu   t
   actions than inspections

❖ Sample size of 10 facilities per state would
   mean many states/Regions - no enforcement
   actions to audit

❖ Would only be verifying enforcement actions
   did not occur at these facilities

❖ Unable to make statements regarding the
   accuracy of enforcement action information
   (i.e., date, lead, type)

❖ Increase sample size

❖ Restrict universe –

facilities that were designated as HPV/SNC during the last two years

At Break - Let me hear your recommendations/reactions

Timeline for Audit of FY 2002 Enforcement Action Data

Mar	Apr	May	Jn	Jl	Aug	Sep	Oct	Nov	Dec	Jan	Feb

Draft released

Comments from Regions and contractor

Tentative Final release

Tentative auditing Time frame

Summary

❖ Audits of Compliance and Enforcement data base fields provide:
- objective measurements of quality
- baselines for quality improvement
- information on the types of errors driving quality down

❖ Promote Modernization of our Systems

❖ Strive to Minimize Burden on Respondents

❖ Participation by Regions and States in audits is Crucial